

IN THE SPECIFICATION:

Please substitute the following amended paragraphs for the corresponding original paragraphs. A marked copy of the paragraph amendments is attached hereto.

In the paragraph bridging pages 11 to 12:

Preferably, exhaust tube 85 is constructed and integrated with the chamber, to provide a laminar flow of effluent through the tube that undergoes little or no turbulence that would otherwise redirect the flow of effluent in directions other than along the longitudinal axial direction of the tube. In a preferred version, the exhaust tube comprises a cylinder having an internal flow surface that is parallel to the direction of the flow of the effluent through the exhaust tube. The exhaust tube may also be substantially absent or free of projections or recesses that alter the effluent flow path or provide a non-laminar flow of effluent. The inner surfaces of the exhaust tube 85 comprise a surface roughness having a Reynolds number of less than about 10. The smooth-finish of the inner surface of the exhaust tube 85, in combination with a vertical orientation of the tube directly beneath the process chamber 25, as shown in Figure 2, provides a more laminar and less turbulent flow of effluent along the flow path. The laminar flow eliminates turbulence of the effluent gas flow stream and reduces the possibility that effluent gas will diffuse back into the process chamber 25. Positioning the exhaust tube 85 further downstream from the exhaust throttle valve 80, as shown in Figure 2, further reduces the possibility of a back flow of effluent gas from entering and contaminating the process chamber 25 because the pressure in the exhaust tube 85 is lower than the pressure in the process chamber. In addition, a laminar flow of effluent allows energizing radiation to be coupled in a high strength in the region immediately adjacent to the inner surface of the exhaust tube 85 to form a higher density of energized effluent gas or plasma. Also, because the effluent flows continually and uniformly past the inner surface of the exhaust tube 85, the deposition of byproducts on the inner surface, which would otherwise accumulate and impede the coupling of the ionizing radiation, make it unnecessary to frequently clean the exhaust tube 85.